

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of)

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) Inquiry Concerning the Deployment of
) Advanced Telecommunications Capability to All
) Americans in a Reasonable and Timely Fashion,
) and Possible Steps to Accelerate Such Deployment
) Pursuant to Section 706 of the
) Telecommunications Act of 1996)

CC Docket No. 98-146

**JOINT COMMENTS
OF MCI COMMUNICATIONS
CORPORATION AND WORLDCOM, INC.**

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MCI Communications Corporation (MCI) and WorldCom, Inc. (WorldCom) hereby submits their joint comments in response to the Federal Communications Commission's (Commission) above-captioned inquiry into the status of the deployment of advanced capabilities.¹

I. INTRODUCTION AND SUMMARY

The Commission should carefully examine the information submitted by parties in response to its notice of inquiry. Before making any decisions about the status of deployment of advanced capabilities, the Commission should define the key technical terms in section 706, and gather information necessary for it to determine whether the advanced capabilities are being deployed on a reasonable and timely basis. It can then assess the status of such deployment, factoring in such things as customer demand for advanced capabilities, maturity of the

¹ Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, CC Docket No. 98-146, FCC 98-187 (released August 7, 1998) (NOI)

technology and market applications and services. the price of advanced services, and the degree of competition in the market. MCI and WorldCom believe that the Commission will find that deployment of advanced capabilities is occurring, albeit at a slower pace than necessary because of ILEC intransigence.

MCI and WorldCom also believe the Commission will find that deployment of advanced capabilities in the interLATA market is proceeding at a reasonable pace. Facilities constructed and owned by multiple interexchange carriers (IXCs) are capable of supporting the demand for a tremendous variety of different services. IXCs, for example, are constructing SONET, ATM, frame relay, SMDS, Internet and video networks. There are also many existing and new backbone providers that are entering the market and rapidly expanding to offer service to countless Internet service providers.

The Commission will also find, however, that the pace of deployment of advanced capabilities in the last mile would be greatly increased if the incumbent local exchange carriers (ILECs) would comply fully with their unbundling, pricing and resale obligations pursuant to section 251(c) of the Communications Act of 1934, as amended by the Telecommunications Act of 1996 (Act). Interestingly, the ILECs themselves have all announced plans to invest and deploy ADSL services -- in their respective regions only -- but continue to erect barriers to entry for their competitors. ILECs want to preserve for themselves the ability to monopolize the local market for both the provision of traditional voice and advanced services. SBC and Bell Atlantic, for example, provide a prime example of how the ILECs want to keep competitors out of the market until they themselves are in a position to compete.² In their petitions seeking

² See e.g., Petition of Bell Atlantic for Partial Reconsideration or, Alternatively, for Clarification, CC Docket No. 98-147 et al. at 4 (filed September 8, 1998); Petition for

reconsideration of the Commission's 706 Order,³ SBC and Bell Atlantic argue that they should not be required to condition loops for advanced services for competitors unless the ILECs already condition loops to provide advanced services themselves.

Competitive local exchange carriers (CLECs) are unable to get open, affordable access to unbundled local loops, collocation space, and subloop elements. It now appears that the ILECs are essentially focusing their efforts on extending their monopolies into the provision of advanced telecommunications services. Clearly, reliance on the ILECs alone to deploy advanced capabilities will not give consumers the anticipated benefits of competition -- widespread deployment and lower prices. In order to prevent the creation of a "digital monopoly," the Commission should require the ILECs to abide by the Act and provide competitors with elements critical to the provision of traditional and advanced services.

Because it is especially important that ILECs not be allowed to control advanced capabilities, as they still have bottleneck control over the facilities to customers' homes, including the local loop and other essential facilities used in the provision of traditional local and advanced services, it is imperative that the Commission hold firm in its decision not to forbear from section 251(c) with regard to advanced telecommunications capabilities.

The Commission should not lose its focus with regard to the purpose of section 706. Importantly, section 706 authorizes the Commission to encourage deployment of advanced

Reconsideration of SBC Communications Inc., Southwestern Bell Telephone Company, Pacific Bell, and Nevada Bell, SBC Petition for Reconsideration, CC Docket No. 98-147 at 5 (filed September 8, 1998).

³ Petition of Bell Atlantic Corporation for Relief from Barriers to Deployment of Advanced Telecommunications Services, CC Docket No. 98-11, *Memorandum Opinion and Order and Notice of Proposed Rulemaking*, FCC 98-188 (released Aug. 7, 1998) (NPRM).

capabilities in a manner consistent with the public interest and utilize measures that promote competition in the local market. Rather than focus on how to let the ILECs continue to avoid full compliance with section 251(c), the Commission should examine the advanced capabilities and assess how it can remove any artificial restraints on the ability of competing providers to deploy advanced technologies and services. Such measures should include intensified enforcement of section 251's resale, unbundling, access and pricing requirements, and other Commission rules designed to curb ILEC abuses of monopoly power and facilitate opening ILEC and BOC networks to competitive providers. Once artificial barriers to entry are eliminated, and local competition is firmly established, widespread deployment of new technologies and advanced telecommunications will certainly follow.

II. REGULATORY INTERPRETATIONS UNDER SECTION 706

A. Advanced Telecommunications Capability

The Commission seeks comment on a variety of definitions used in the context of advanced telecommunications services. These definitions will assist the Commission in determining whether there has been deployment of advanced capabilities, and ultimately services, in what can be viewed as a reasonable and timely fashion. Without clearly defined parameters for such a determination, the industry will grope with individual definitions and terms while attempting to advise the Commission about the deployment of these capabilities. Moreover, the lack of clearly defined terms will render the Commission incapable of comprehensively assessing the ever changing telecommunications marketplace.

Technology definitions ultimately adopted by this Commission need not be immutable. Just as the technology advances, the definitions must be sufficiently flexible to be modified over

time.⁴ Section 706 mandates that the Commission regularly initiate a notice of inquiry concerning the availability of advanced telecommunications capabilities.⁵ The implementation of the obligation provides the Commission with the ability to amend the technology definitions that will encompass the latest developments in advanced infrastructure, services or technology. Moreover, it is imperative that the Commission maintain the ability and the willingness to reassess its definitions in accordance with future market considerations.

In keeping with this strategy, the Commission has correctly sought comment to establish the rules of the game. There is little doubt that widespread deployment of broadband capability is a necessary condition for achieving the maximum potential of telecommunications and information services. Broadband facilities, as we know them today, are capable of transmitting voice, video and data traffic. The Commission should define "broadband" as any transmission facility that has bandwidth greater than 1.5 Mbps (DS1) bandwidth.⁶ This definition is consistent with the Commission's general use of the term "broadband" in other contexts such as its recent notice of proposed rulemaking (NPRM).⁷ There, the term "broadband" denotes sufficient capacity, or bandwidth to permit the transmission of sizeable amounts of information or bits. It follows that the Commission should define "high-speed" as a bit-rate speed between

⁴ NOI, ¶ 15.

⁵ MCI and WorldCom note that advanced telecommunications capabilities are those capabilities that deliver bi-directional high-bandwidth packet data traffic to customers to support the delivery of voice, data, or video services. One-way services should not be considered advanced capabilities.

⁶ NOI, ¶ 14. Narrowband should be 0-64 Kbps, and wideband should be 64 Kbps - 1.5 Mbps.

⁷ NPRM, at n. 3.

64 Kbps and 1.5 Mbps. MCI and WorldCom also note that technologies capable of high-speed transmission are now widely available for mass market deployment.⁸

We see no reason why the Commission should be confined to assessing the deployment of advanced capabilities and services when it can further the goals of section 706 in the context of other proceedings. The relationship between section 706(a) and 706(b) does not mandate that action under one section, section 706(b), precede action under the other, section 706(a).⁹ Section 706(b) contains the Congressional mandate that the Commission undertake the instant inquiry, and subsequent inquiries, into the deployment of advanced capabilities, and, if such deployment is lacking, the Commission may use its existing authority to take measures to encourage the deployment of advanced capabilities. Section 706(a) is a general policy directive to the Commission and states to encourage deployment of advanced capabilities. However, one may surmise that the Commission would be hard-pressed to act when it has yet to determine whether a problem exists and how that problem can best be rectified.

Be that as it may, in the context of reviewing the applications filed pursuant to section 271 by the Bell Operating Companies (BOCs), the Commission, and the states, can require that the local competition goals of section 706 are met. As part of the section 271 checklist, BOCs are required to provide cost-based access to unbundled elements that CLECs can use to provide services such as xDSL services utilizing advanced capabilities, as well as to make those services available for resale with a wholesale discount. A BOC's failure to make such elements and services available to their competitors, consistent with the terms of section 251(c), would require

⁸ Broadband technologies are currently being developed to carry traffic from speeds of 6-8 Mbps to 30 Mbps. This technology should be available in approximately three years.

⁹ NOI, ¶ 17.

a finding that it has failed to implement fully the competitive checklist in section 271 and to meet its statutory mandate to open its local markets to competition. Indeed, increased local competition provides the greatest insurance for the strongest pro-innovative telecommunications environment. Regardless of the Commission's findings as a result of the instant inquiry, it must vigorously enforce the unbundling, pricing and resale requirements of section 251(c).

Importantly, the Commission must also further the objectives of section 706 by enforcing the unbundling, pricing and resale requirements of section 251(c) of the Act. In order to provide ubiquitous advanced services, CLECs need a variety of service delivery options, ranging from providing service exclusively over their own facilities, to obtaining various network elements singularly or in combination, to resale. Section 251(c) entitles CLECs to each of these service delivery methods. MCI and WorldCom will decide on a case-by-case basis which method is the most efficient, competitive, cost-effective way to provide these services. As such, CLECs must be able to obtain the same ILEC elements and services pursuant to section 251(c) that it needs for other local services like traditional voice services. For these reasons, the Commission should not only mandate minimal, national standards for alternative methods of collocation and local loop unbundling requirements,¹⁰ it should strictly enforce its mandate that competitors have reasonable and nondiscriminatory access to all equipment used by the ILECs, or their successors or assigns, to provide advanced telecommunications services.

CLECs intend to provide service to all areas of the country, but their ability to do so is affected by limited access to unbundled local loops and collocation space in central offices and

¹⁰ NPRM, ¶ 124.

remote terminals.¹¹ As the Commission acknowledged in its NPRM,¹² competitors' ability to deploy advanced capabilities is impeded by, among other things, severely limited and discriminatory access to unbundled loops and collocation space. For example, competitors have encountered problems when trying to access ILEC local loops where the ILEC has deployed Integrated Digital Loop Carrier (IDLC) technology. IDLC requires different approaches to unbundling of the local loop. With this technology, subscriber loop channels are multiplexed together onto a DS1 signal, and transported over fiber to the ILEC's central office, thereby making it difficult to isolate a particular subscriber's traffic from the other signals that are concentrated onto the DS1. Because xDSL-based services require an end-to-end copper loop from the service provider's termination equipment to the customer, the fiber transmission facility between the remote terminal and the central office creates a problem for delivering high-speed access to customers served by IDLC technology. However, the Commission has determined that it is technically feasible to unbundle local loops capable of transporting high-speed digital signals, even where they deploy IDLC technology.¹³

There are also limitations on whether a particular local loop is capable of supporting xDSL services. As the Commission noted,¹⁴ unbundled local loops that exceed 18,000 feet, or that have loading coils or bridged taps are less likely to be able to support xDSL services. ILECs use loading coils to increase voice service quality in rural and suburban areas farther than 18,000

¹¹ NOI, ¶ 31.

¹² NPRM, ¶ ¶ 151, 145 respectively.

¹³ Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98 at ¶ 384 (rel. Aug. 8, 1998) (Local Competition Order).

¹⁴ NOI, ¶ 22.

feet from a central office switch. Bridged taps are unused branches of a copper loop that do not interfere with voice transmission quality, but that limit the effectiveness of xDSL services because they introduce impedance, resulting in increased insertion loss and signal reflections of the xDSL technology applied to the loop. Loading coils and bridged taps are features of the ILEC network that limit the effectiveness of xDSL services. Because xDSL is distance sensitive, unbundled local loops must also meet length requirements so that xDSL speed will not decrease as loop length increases.

In today's environment, for MCI, WorldCom or any other CLEC to discover whether a particular loop is capable of supporting xDSL service to a customer, it more often than not, must be determined manually on a customer-by-customer basis. Because the ILECs' operations support systems (OSS) inadequately address the provisioning of unbundled network elements to provide advanced capabilities, CLECs have inferior access to detailed information about a local loop's condition and capability and cannot independently determine whether such a loop is capable of supporting xDSL service. As the Commission has already determined, CLECs are entitled to nondiscriminatory access to OSS for the provision of traditional voice and advanced capabilities and services, and must receive such access to ensure that they have a reasonable opportunity to compete in the market.¹⁵ To the extent necessary to provide reasonable, as well as nondiscriminatory, access for advanced services, ILECs must provide OSS functions on a nondiscriminatory basis, so that CLECs can receive sufficient, timely information about a local loop's capability.

¹⁵ Local Competition Order, ¶ 516.

B. Reasonable and Timely Criteria

Once the rules and definitions are established, the Commission may then assess the status of advanced capability deployment. Section 706 requires that the Commission determine whether advanced capabilities are being deployed on a reasonable and timely basis.¹⁶ The measure of the deployment of advanced capabilities will be based on several factors -- all of which must be reviewed in the context of the current environment.

First, the Commission must determine whether there are growing broadband market applications and services, even if those markets and applications are not fully mature. The Commission has recognized the need to establish an environment that encourages the growth of telecommunications services. In this context, the Commission should recognize the benefits for consumers that have derived from the Internet.

Second, the Commission should determine whether the technology is mature enough, and the supplier base competitive enough to sustain widespread deployment. Nascent technology advances cannot always be immediately deployed or deployed on a widespread basis. The Commission should recognize that competition in the market will provide companies with the incentive to develop technologies that are less costly, and improve quality and increase choice for consumers. Technological advancements must be "proved in the market" and shown to reduce costs or provide new capabilities in a cost effective manner. The Commission should, as stated below, enforce its rules and implement others to ensure that competition can develop fairly through an open local market.

The current fervor now surrounding xDSL services, for example, evolves from several

¹⁶ *Id.*, ¶ 17.

factors: its application for Internet access and other data services requiring high bandwidth, increasing demand for the service that justify market entry for more than just "niche" applications or markets, and continued innovation that has led to greater equipment choices at more reasonable prices. Even here, the industry is undergoing a growth spurt because the benefits of cost reductions in access technologies are being encouraged by the limited competition that has developed so far in providing these enhanced services. These factors will be equally applicable to future advanced capabilities and services.

Third, one of the factors that determines the reasonableness of deployment is price. If ILECs are charging monopoly prices for advanced capabilities, they are not deploying them reasonably. If the price for service is too high, it will only effectively be available to a small percentage of customers that can afford to pay monopoly rates.

Fourth, the level of customer demand should be a factor in assessing whether deployment of advanced capabilities is reasonable and timely. In the proceedings involving the BOC 706 petitions, for example, demand for advanced capabilities from the consumers' perspective had not really been explored. While product maturity of xDSL services has been a factor, as have the equipment and its cost and the progress of industry standards bodies, increasing end user demand for high-speed Internet access services, means that advanced capabilities such as xDSL can now be deployed more broadly and that more extensive and rapid deployment -- absent ILEC anticompetitive behavior -- could be reasonable and timely.

Fifth, it will be up to the Commission to determine how the market can most completely and quickly achieve its potential to be fully competitive. In other words, there should not be anti-competitive actions or monopolistic behavior that severely hinders new entrants from seizing the opportunity to fairly compete in the marketplace. ILECs such as Bell Atlantic and

SBC should not be permitted to unilaterally decide that competitors should not get access to loops where the ILEC itself is not already providing service. No single segment of an industry should have the ability to control and direct the future of advanced technologies. Rapid growth and vibrant competition are factors that create the greatest number of options for user experimentation in the marketplace, creating a unique economy and unpredictable atmosphere. Although it is impossible -- as well as inadvisable -- to predict which technology will become the market favorite, any action that limits market choices will lead to an easily predictable result: a stagnant market held hostage by the monopolist ILECs' lack of innovation.

The unique competition and user-driven innovation processes inherent in the realm of advanced telecommunications generate broad economic benefits dwarfing those that might result from the innovation of any monopoly provider. Competition in the marketplace will lead to more rapid innovation because carriers will have the natural incentive to distinguish themselves from competing carriers by bringing new services to the market. In the end, this incentive will accelerate technology development, foster competition and reduce costs for customers.

C. Status of Deployment

The Commission's request for comment on the status of deployment of advanced capabilities must be answered in the context of the current environment. It would, indeed, be disingenuous to say that new entrants have a fair opportunity to provide advanced telecommunications services. Despite market impediments, competitors are attempting to roll out new and innovative services under extreme circumstances. First and foremost, new entrants need cost-based rates for interconnection and access to unbundled elements. Unfortunately, the rates established for unbundled elements in many local markets are excessive. New entrants are often saddled with enormous up-front costs associated with market entry for which they have no

guarantee of return--unlike the incumbent monopolists. In addition, incumbents have made access to equipment and collocation space so fraught with problems that the delays alone have resulted in only incremental progress for local market entry for voice services. Despite these artificial obstacles erected by ILECs, many CLECs have been deploying facilities and making an attempt to remain viable as advanced services providers.¹⁷

In addition to requiring that ILECs unbundle their local networks, including copper loops, operations support systems, switching elements, and network capabilities such as DSL modems, much more needs to be determined and then enforced by this Commission. The necessary network elements for the provision of these services must be clearly defined. Failure to provide them should be deemed a violation of the Act and must be dealt with swiftly and effectively. Moreover, the requirement that ILECs make their xDSL services available for resale is important to facilitating competition in the provision of advanced telecommunications services, particularly in areas where competitors do not in actual fact have access to xDSL equipment through collocation or where the cost of facilities-based service is not justified by the number of potential customers. Subscribers in those areas will otherwise achieve only to a more limited degree the benefits of alternative providers of xDSL services -- low rates and the availability of innovative services. Without the additional measures undertaken by this Commission to ensure access to vital network elements, equipment, collocation space and resale pursuant to section 251(c), the ILECs will benefit from a unique, "first-mover" mass market advantage that will leave the potential competition lagging woefully behind.

¹⁷Cite press releases from Covad, Concentric, Rhythms, Northpoint Communications, USN Communications.

D. Competitive Markets

As evidenced by the surging success of the Internet, deployment of advanced capabilities will occur at a faster pace in a competitive market where there are multiple service providers. Competition in the marketplace will lead to more deployment of advanced capabilities and services because, as noted earlier, competitors will have the natural incentive to distinguish themselves from competing carriers. The more service providers there are in the market, the more likely subscribers' demands will be met with reasonable prices, efficient technologies and better quality service. Technology winners and losers should not be determined by the Commission or a single monopoly provider, but should be determined in a free and open market pursuant to the Act the rules promulgated by the Commission and as well as state commissions.

III. CURRENT AND FUTURE DEPLOYMENT PLANS: REASONABLE AND TIMELY DEPLOYMENT

A. CLEC and ILEC Facilities

Under the current environment, the Commission recently clarified that an ILEC, when providing data and voice services using traditional or advanced capabilities, is subject to section 251(c) obligations.¹⁸ Notwithstanding the Commission's consistent position, and the ILECs' recognition that the obligation was in effect, (otherwise they would not have filed petitions seeking relief under section 706), all of the BOCs and GTE announced that they were investing in and deploying ADSL service in their territories.¹⁹ Interestingly, none has announced out-of-

¹⁸ NPRM, ¶ 11.

¹⁹ ILECs, therefore, need no regulatory incentives, such as regulatory forbearance. The only additional incentives needed are those provided by competition. The ILECs claim they have little incentive to continue investing because they have to share their networks and services with competitors. But, to the extent any adjustment for risk is appropriate, it can be incorporated in cost-based rates. The ILECs' threat to cut back on the deployments they have announced are

region deployment of xDSL or other advanced capabilities.²⁰ There is nothing preventing Ameritech from building backbone capacity in Houston or Los Angeles, and Bell Atlantic from providing high-speed digital access services in Tampa or Houston. The Act permits -- indeed, encourages -- the BOCs to invest in out-of-region facilities and services.²¹

CLECs, despite the significant competitive barriers set forth above, have continued not only to express their interest in providing these services, but have begun to position themselves and have begun to actively deploy xDSL services.²² MCI and WorldCom, for example, has a

nothing more than tactics to coerce premature and undeserved regulatory forbearance. It makes economic sense for the ILECs to meet the burgeoning demand for large bandwidth to homes and offices by deploying xDSL capabilities subject to the requirements of section 251(c).

²⁰ *Bell Atlantic, SBC to Roll Out ADSL*, Communications Today, June 16, 1998 (describing Bell Atlantic's plan to make ADSL available on approximately 2 million lines by the end of 1998; reporting that SBC announced plans to make available ADSL available on approximately 2 million lines by the end of 1998); *SBC Promises Roll Out of ADSL in California*, Communications Today, June 5, 1998 (reporting SBC's announcement that Pacific Bell is beginning to deploy ADSL service to more than 200 communities in California); *BellSouth to Roll Out ADSL in 30 Markets*, Communications Today, May 5, 1998 (describing BellSouth's plans for a 30-city deployment of ADSL to 1.7 million customers in late August); *U S West Launches Ultra-Fast DSL Internet Service in Twin Cities; Continuous Deployment of Always-on "Web-Tone" Data Version of Dial-Tone*, U S West Press Release, May 13, 1998 (announcing its launch of its MegaBit Services ADSL).

²¹ If the BOCs' response is that the only incentive to provide these facilities and services is to do so within their regions, where their local exchange facilities are located, this only shows that the BOCs' motivation to provide Internet facilities and services is solely derived from their control of local bottleneck facilities. Plainly, then, the BOCs' desire to invest in the Internet and advanced services, and their desire to be the only provider of those services within the reach of their local monopolies, are completely intertwined. Further, despite some BOCs' complaints about the substantial risks of deploying xDSL, there is no real "risk" from their perspective. The BOCs already enjoy a higher rate of return than any other single industry segment in America.

²² *The Speed to Work*, Covad Press Release (December 8, 1997) (describing the launch of DSL in San Francisco Bay Area); *Concentric Network Launches ADSL Internet Services; First Step to Becoming a Leading Provider of IP Services Using DSL Technology*, Concentric Press Release, November 14, 1997); *Northpoint Communications, A National Data CLEC, Launches Business-Class DSL Services in Bay Area and Silicon Valley*, Press Release, March 23, 1998.

large, strong network and continues to demonstrate its commitment and ability to deploy advanced technology. MFS, a wholly-owned subsidiary of WorldCom, was one of the pioneers of xDSL deployment. With the assistance of forward-thinking vendors, WorldCom and other CLECs, preceded the ILECs to the xDSL market.²³ MFS first announced plans to deploy xDSL in December, 1996, and developed and rolled out workable xDSL service to replace ISDN service.²⁴ MFS was the first to develop a workable IDSL-type DSL (IDSL) service to replace circuit-switched ISDN service, and the first company to actually deploy the IDSL service. In fact, MFS also was the first company to introduce policy makers to this new xDSL technology--initially during a live demonstration of xDSL service to the Commission in late 1996, and then in similar demonstrations to policy makers the following year.

During 1996, MFS fought for the right to access xDSL-capable loops. As a result, in each of its interconnection agreements with the ILECs, MFS was successful in negotiating the right to utilize xDSL capability to provide service ubiquitously to its end user customers. Securing a right by paper, however, is far different from actually being able to exercise it in the marketplace. For over two years, as they declined to provide xDSL services themselves, the ILECs managed to stonewall MFS and other CLECs from accessing xDSL-capable loops and xDSL technologies.²⁵ As a result, WorldCom has been unable to deploy xDSL technology

²³ Press Release, "MFS and UUNET Announce Plan to Rollout New xDSL Services That Redefines Internet Access for Growing Businesses," December 9, 1996; see also "UUNET to Launch High-Speed DSL Services," Web Week, January 6, 1997 (with regard to xDSL, the RBOCs are "still trying to play catch-up" to the CLECs).

²⁴ Indeed, MFS first presented the IDSL service to the Commission in a live demonstration in 1996.

²⁵ Several commenters in the BOC Section 706 proceedings presented an excellent snapshot of this anticompetitive ILEC behavior. See Comments of Covad Communications

ubiquitously across the country. Among other things, this fact demonstrates that the ILECs' monopoly over essential facilities can impede the timely deployment of new services.

Currently, WorldCom is actively providing xDSL service to its customers from fifty-four (54) ILEC central offices. WorldCom is providing xDSL service in more than one central office in a number of cities, such as New York City, Los Angeles, San Francisco, and Boston, and in a single central office in Atlanta, Baltimore, Hartford, Rochester, and Independence, OH. WorldCom intends to accelerate its movement into dozens of other ILEC central offices over the next year, contingent on the availability of such things as collocation space and power, and unbundled, xDSL-conditioned loops. This near-term rollout will be focused on 37 ILEC central offices in a number of metropolitan areas, including Washington, D.C., Seattle, Northern New Jersey, Dallas, and Chicago.

Only now, after some CLECs have begun to experience limited success in a few niche markets, and several cable operators have announced high-speed Internet access using cable modems,²⁶ have the ILECs awakened to discover the promise of xDSL services. With this discovery, the ILECs have unilaterally decided that only they can and should be entitled to provide xDSL service, and thus should be able to foreclose others' ability to compete in the market. CLECs seeking to provide ubiquitous xDSL service must rely on the ILECs who do

Company, CC Docket Nos. 98-11, 98-26, 98-32, filed April 6, 1998, at 8-12 ("Covad Comments"); Comments of the DSL Access Telecommunications Alliance, CC Docket Nos. 98-11, 98-26, 98-32, filed April 6, 1998, at 11-14 ("DATA Comments").

²⁶ See e.g., Southwestern Bell Telephone Company, Pacific Bell, and Nevada Bell Petition for Relief from Regulation Pursuant to Section 706 of the Telecommunications Act of 1996 and 47 U.S.C. § 160 for ADSL Infrastructure and Service, CC Docket No. 98-91 at XX (filed June 9, 1998); Petition of Bell Atlantic Corporation for Relief from Barriers to Deployment of Advanced Telecommunications Services, CC Docket No. 98-11 at 21 (filed January 26, 1998).

have facilities throughout the country, to deploy the necessary facilities. If the ILECs are allowed to continue to engage in discriminatory treatment of competing providers, their assertions about the lack of incentive to provide advanced data capabilities and services will come to fruition.²⁷

There are certain CLECs now competing in the xDSL market, such as UUNET, Covad, Northpoint, and others. However, these competitors, operating on a limited geographic basis for a few niche markets, remain dependent on the ILECs' bottleneck local loops in order to provide ADSL services to their customers. CLECs can compete with the ILECs to provide xDSL and other services, only insofar as the ILECs will allow such competition by complying with their Section 251(c) obligations.

B. Internet Backbone

The term "Internet backbone" is often misconstrued or confused with other aspects of the Internet. An Internet backbone network is generally understood to mean an underlying structure of (a) transmission facilities that are self-provided or leased from telephone companies, and (b) TCP/IP routers, switches and modems connected to the underlying physical transmission facilities. The needed transmission capacity is widely available from many carriers, and the routers, switches and modems are readily available from a variety of third-party vendors. Any telecommunications carrier or ISP could obtain the necessary hardware and software and become an Internet backbone provider -- just as any computer can use the TCP/IP protocol and thereby

²⁷ See e.g., In the Matter of an Investigation into U S West Communications, Inc.'s Provision of MegaBit Services, filed with the State of Minnesota Public Utilities Commission, filed by the Department of Public Service and the Office of Attorney General, Docket No. P421/EM-98-471 at 1 (filed September 10, 1998) (alleging that U S West is offering its ADSL services in a discriminatory manner against independent Internet service providers).

become part of the Internet.

There are approximately 40 providers of national Internet backbone services in the United States alone.²⁸ In response to accelerating demand for Internet services, these providers have designed and installed Internet backbones capable of super-aggregated traffic flows over higher capacity trunks (OC-12, OC-48). Current providers -- which include both national interexchange carriers and a variety of other companies that both own and lease interexchange capacity -- are able to acquire the necessary capacity to keep up with demand. With new providers such as Qwest and Level 3 preparing to bring on line their own massive networks, MCI and WorldCom do not foresee that any significant capacity constraints will come to pass.

As FCC Commissioner Ness recently remarked, the Internet backbone "is an area in which multiple providers are making massive investments to meet burgeoning demand and noted that "today every major player in the communications world is heavily invested in the Internet."²⁹ Commissioner Ness then listed a number of players to substantiate her point, including Qwest and Level 3, as "making multi-billion dollar investments in the deployment of new fiber capacity...."³⁰

Contrary to ILEC allegations, there is no shortage of long-haul backbone capacity outside local networks nor is there any evidence of underinvestment in Internet facilities.³¹ While there

²⁸ Boardwatch Magazine, *Directory of Internet Service Providers*, Winter 1998.

²⁹ Speech of Commissioner Susan Ness, WashingtonWeb Internet Policy Forum, February 9, 1998 at 3 (Prepared for Delivery).

³⁰ *Id.*

³¹ NOI, ¶ 25. If there have been any capacity constraints, it is not for lack of investment. Instead, it is because exponential growth in Internet usage has surpassed expectations, although, in the end, supply has generally kept pace with such demand.

is an increasing demand for domestic and international Internet backbone bandwidth, it can be, and is, met by numerous backbone providers already present in the market, and additional entry spurred by constant demand and declining costs. The market for Internet backbone services is currently competitive and no barriers--other than ILEC anticompetitive behavior-- limit the ability of firms to enter the backbone market. However, with respect to Internet facilities not currently controlled by the ILECs, there is no reason to anticipate market failure or to believe that existing competitors and new entrants are investing too little in backbone services.

C. IXC Facilities

Facilities constructed and owned by interexchange carriers (IXCs) are capable of providing advanced services and therefore should constitute advanced capabilities.³² MCI and WorldCom have demonstrated their commitment to deploying the most innovative global technology for bandwidth transport on the backbone network, including MCI's and WorldCom's SONET, ATM, frame relay,³³ SMDS, Internet, video and wave division multiplexing networks. A tremendous number of different services can be supported by these various networks. In order to address the whole market, MCI and WorldCom need access to all customers, which means access to the local networks. Because IXCs must rely heavily on ILECs' infrastructure to provide service to their customers, access to the last mile is the most difficult and the most critical element for IXC provision of services.

D. Construction of Last Mile by New Entrants

The Commission acknowledged that new entrants are not likely to construct additional

³² NOI, ¶ 32.

³³ WorldCom, for example, has several patents for frame relay networks.

loops for residential and small business customers.³⁴ Such construction would not only be duplicative and wasteful, it would also be cost prohibitive. Further, competition in the local market will continue to be unduly delayed if CLECs were required to construct these redundant facilities. In addition, such construction is not necessary because the facilities passing many homes have capacity for two or more copper pair. For instance, even where there are multiple loops to residences and then depending upon the actual number, ILECs have refused to allow CLECs to use the same loop over which they provide local service.

IV. REMOVING BARRIERS TO INFRASTRUCTURE INVESTMENT AND PROMOTING COMPETITION

A. Regulatory Forbearance for the ILECs

As noted earlier, the Commission refused to grant forbearance from section 251(c) to the ILECs with regard to advanced telecommunications capabilities.³⁵ This is particularly important now that the ILECs have resisted compliance with the requirements of section 251(c) and the advanced services industry is beginning to take shape. Commission forbearance from regulation would have allowed the ILECs to control the terms and conditions of access to upgrades (however incremental they might be) in their networks that are necessary for the efficient provision of innovative broadband capabilities and services. It is especially important that ILECs not be allowed to restrain the availability of advanced capabilities, as they have bottleneck

³⁴ NOI, ¶ 68.

³⁵ See In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability, Memorandum Opinion and Order, and Notice of Proposed Rulemaking, FCC 98-188, (706 Order and NPRM) at ¶¶ 69-72 (released August 7, 1998) (stating that section 706 is not an independent grant of forbearance authority separate from section 10, and section 10(d) "expressly forbids the Commission from forbearing from the requirements of sections 251(c) and 271").

control over the last mile to the consumers' homes -- the local loop.

The Commission should focus its efforts on opening local markets for voice and data to competition by ensuring proper implementation of its rules. Enforcement of the congressionally-mandated obligations under sections 251(c) and 271 will promote competition and benefit consumers. Congress recognized that forbearance from the requirements of section 251(c) in current circumstances would be contrary to the public interest when it permitted forbearance under section 10(d) only when requirements are fully implemented. Contrary to the ILECs' claims, timely deployment, innovation and consumer benefits will not occur if data networks or advanced telecommunications capabilities are deployed only by monopolist providers. Granting any ILEC forbearance from the procompetitive provisions of the Act and the Commission's rules will not lead to competition. Rather, forbearance would give the ILECs control over access to advanced capabilities before competitive alternatives are available. This would result in a return to the traditional paradigm where a single entity determined when innovation would occur, and a rejection of the new paradigm, most notably employed on the Internet, where users determine the pace and success of innovation. Further, a grant of forbearance would result in a monopoly environment which would allow the ILECs to proceed at their own slow pace in deploying innovative equipment and technologies with no adverse consequence to them -- only to consumers.

Moreover, in addressing the state of advanced capabilities under section 706 of the Act, the Commission should not take action that would permit data networks or services to become monopolized. Deployment of advanced telecommunications capability to the mass markets, given the state of "product maturity" of advanced telecommunications capability -- such as xDSL technologies-- has been proceeding, albeit at a slowed pace due to the ILECs' anti-competitive

behavior, and increased competition through full implementation of the requirements of section 251(c) by the ILECs and their successors and assigns would lead to faster and broader deployment. There is a danger that the ILECs will slow or stop the development of advanced capabilities if they are not forced to compete fairly in the market and required to comply with the obligations of section 251(c). Investment in advanced telecommunications capabilities is not discouraged by the Commission's rules and regulations. To the contrary, the ILECs are free to build advanced networks outside their regions, even though they have yet to do so and are offering advanced capabilities and data services inside their regions without the need for forbearance authority. Prior to filing the initial section 706 petitions in the early months of 1998, the BOCs released numerous press stories announcing their plans to deploy xDSL technologies.³⁶ The press releases detailed large-scale plans to establish advanced telecommunications networks. Interestingly, while announcing deployment of xDSL service, the BOCs sought to eliminate competition in the new market by seeking regulatory forbearance pursuant to section 706 on the grounds that they had no incentive to do what they were announcing. This strategy has not and should not be condoned by this Commission.

1. APT's Proposed Forbearance Plan

In its petition, the Alliance for Public Technology ("APT") suggested a host of deregulatory measures for the ILECs in the name of innovation, such as relief from price caps, certain depreciation regulation and a lower productivity factor.³⁷ APT's vague and general

³⁶ See note 20 above.

³⁷ See Petition of the Alliance for Public Technology Requesting Issuance of Notice of Inquiry and Notice of Proposed Rulemaking to Implement Section 706 of the 1996 Telecommunications Act, File No. CCB/CPD 98-15, RM-9244, (filed February 18, 1998) at 22.

requests would give the ILECs unjustifiable regulatory relief before their local markets are open to competition.

As MCI stated in its comments to the BOC's section 706 petitions,³⁸ regulatory forbearance from price cap and other regulations is not in the public interest. The ILECs must open their local markets to competition, and only effective competition will deter them from engaging in anti-competitive behavior that harms consumers.

MCI and WorldCom also strongly object to any decrease in the productivity factor for the ILECs. While APT may view the current productivity rate as too high for the ILECs, MCI and WorldCom believe that the productivity factor should be increased. As demonstrated in the productivity studies on record as part of the Commission's price caps proceeding (CC Docket No. 94-1), the productivity growth factor is closer to 8.5 percent per year.³⁹ The higher the ILECs' productivity factor, the lower their rates will be. For the reasons discussed in these comments, MCI and WorldCom do not agree that a lower productivity factor or any other deregulatory measure will give the ILECs any incentive to innovate. The threat of competition is the only motivating factor for the ILECs. Allowing the ILECs to charge more does not necessarily mean that they will use the extra funds to invest in advanced capabilities. Competition would force the ILECs to pass through the benefits to consumers. Because there is

³⁸ See e.g., Opposition of MCI Telecommunications Corporation, CC Docket No. 98-32, at 22 (filed April 6, 1998).

³⁹ Review of the x factor is pending at the Commission as part of the reconsideration of its price cap Order. At issue remains the question of the productivity factor. Specifically, the calculation of BOC productivity growth based on productivity studies included in the record, which clearly demonstrate productivity growth close to 8.5 percent (as opposed to claims made by the BOCs that the productivity factor is closer to 6.5 percent). See In the Matter of Price Cap Performance Review for Local Exchange Carriers; Access Charge Reform, Fourth Report and Order, CC Docket No. 94-1, FCC 97-159 (released May 21, 1997).